What is claimed is:

1. A method for increasing the transport of a biologically active agent into mammalian cells comprising:

contacting the cells with a medicament comprising the agent and at least one carbohydrate,

so that the carbohydrate enhances the absorption of the agent into the cells relative to the absorption of the agent in the medicament lacking carbohydrate.

2. The method of claim 1 wherein the agent and the carbohydrate are in an aqueous vehicle.

3. The method of claim 2 wherein the medicament is a solution, suspension, or gel.

4. The method of claim 3 wherein the medicament is saturated with said agent.

5. The method of claim 1 wherein the medicament is an aqueous solution comprising about 20-99 weight percent carbohydrate.

6. The method of claim 1 wherein the weight ratio of carbohydrate:agent is about 4:1-15:1 in aqueous solution, either after preparation with aqueous solvent or after delivery into the aqueous environment surrounding the cells.

7. The method of claim 1 wherein the weight ratio of carbohydrate:agent is at least 7:1 in aqueous solution, either after preparation with aqueous solvent or after delivery into the aqueous environment surrounding the cells.

8. The method of claim 1 wherein the medicament is a dry preparation and the weight ratio in the medicament of carbohydrate:agent is about 1.5:1-20:1.

9. The method of claim 8 wherein the agent is glutamine.

10. The method of claim 1 wherein the cell is an epithelial cell.

11. The method of claim 10 wherein the epithelial cell is part of the gastrointestinal tract of the mammal.

12. The method of claim 1 wherein the cell is an endothelial cell.

13. The method of claim 1 wherein the mammal is a human.

14. The method of claim 1 wherein the carbohydrate comprises a saccharide.

15. The method of claim 14 wherein the saccharide comprises a disaccharide or a monosaccharide.

16. The method of claim 14 wherein the saccharide is sucrose.

17. The method of claim 14 wherein the saccharide comprises a polysaccharide.

18. The method of claim 14 wherein the saccharide comprises a sugar alcohol.

19. The method of claim 18 wherein the sugar alcohol comprises sorbitol, mannitol or xylitol.

20. The method of claim 1 wherein the agent is an amino acid or amino acid salt.

21. The method of claim 20 wherein the amino acid is chosen from amino acids with a solubility of less than about 5 grams per 100 milliliters of water.

22. The method of claim 1 wherein the agent is a peptide.

23. The method of claim 1 wherein the agent is a nucleoside or nucleoside analog.

24. The method of claim 23 wherein the nucleoside analog is acyclovir.

25. The method of claim 1 wherein the agent is a nucleotide or nucleic acid.

26. The method of claim 1 wherein the agent is a steroid.

27. A dry composition comprising at least one carbohydrate and an amino acid, wherein the ratio of total carbohydrate to amino acid is about 1.5:1-20:1.

28. The composition of claim 27 wherein the amino acid is glutamine.

29. An aqueous solution comprising at least one carbohydrate and an amino acid wherein the ratio of total carbohydrate to amino acid is about 4:1-15:1.

30. The solution of claim 29 wherein the amino acid is glutamine.

31. The solution of claim 29 wherein the solution is saturated with the amino acid.

32. An aqueous solution comprising at least one carbohydrate and acyclovir, wherein the weight ratio of total carbohydrate to acyclovir is at least about 7:1.

33. A method of administering a therapeutically effective amount of an amino acid to treat a physiological disorder of a mammalian subject, comprising:

(a) preparing a composition comprising a therapeutically effective amount of an amino acid, and at least one carbohydrate; and

(b) contacting the composition with the cells of the subject, so as to administer an effective amount of the amino acid to the subject; wherein the weight ratio of total carbohydrate to amino acid is about 4:1 to 15:1 in aqueous solution, either after preparation with aqueous solvent or after delivery in the aqueous environment surrounding the cells, wherein the carbohydrate enhances the absorption of the agent into the cells relative to the absorption of the agent in the medicament lacking carbohydrate.

34. A method of administering a therapeutically effective amount of an amino acid to treat a physiological disorder of a mammalian subject, comprising:

(a) preparing a composition comprising a therapeutically effective amount of an amino acid, and at least one carbohydrate; and

(b) contacting the composition with the cells of the subject, so as to administer an effective amount of the amino acid to the subject wherein the weight ratio of total carbohydrate to amino acid is at least 7:1 in aqueous solution, either after preparation with aqueous solvent or after delivery in the aqueous environment surrounding the cells, wherein the carbohydrate enhances the absorption of the agent into the cells relative to the absorption of the agent in the medicament lacking carbohydrate.

35. The method of claim 33 or 34 wherein the composition comprises an aqueous vehicle.

36. The method of claim 33 or 34 wherein the amino acid is chosen from amino acids with a solubility of less than about 5 grams per 100 milliliters of water.

37. The method of claim 33 or 34 wherein the amino acid is glutamine.

38. The method of claim 37 wherein the physiological disorder comprises epithelial tissue damage to the gastrointestinal tract.

39. The method of claim 33 or 34 wherein the physiological disorder comprises abnormal amino acid metabolism.

40. The method of claim 33 or 34 wherein the physiological disorder comprises decreased amino acid absorption.